

METHOD AND APPARATUS FOR EFFICIENT AND FLEXIBLE ROUTING BETWEEN MULTIPLE HIGH BIT-WIDTH ENDPOINTS

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Abstract

Multi-bit data signals are digitally switched between input and output endpoints for simultaneously interconnecting various sets of inputs and output endpoints. Single input may send data to single endpoint, or single input may send data to multiple output endpoints. Multiple bitwidth (b) data is serialized to single bitwidth at high data rate using N-by-1 multiplexer. Loadable barrel shifters shift serial data, so same data is used by multiple output endpoints at different times.

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